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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,487	02/10/2004	Ho-Yuan Yu	LOVO-058.DIV	3256
7590 03/14/2006 WAGNER, MURABITO & HAO LLP Two North Market Street, Third Floor San Jose, CA 95113			EXAMINER NGUYEN, KHIEM D	
			ART UNIT 2823	PAPER NUMBER

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/776,487

Applicant(s)

YU, HO-YUAN

Examiner

Khiem D. Nguyen

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

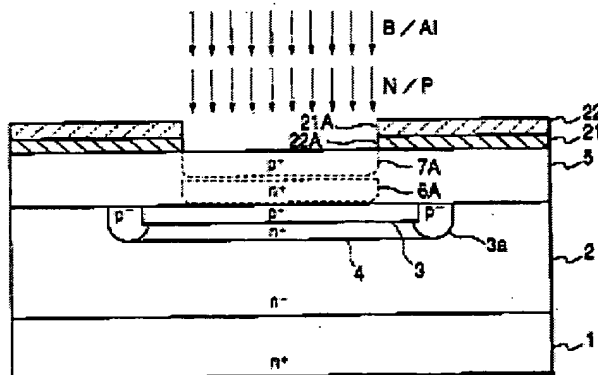
Claims 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Kumar et al.

(U.S. Patent 6,551,865).

In re claim 15, **Kumar** discloses a method for fabricating a dual gate structure for a field effect transistor (FET), the method comprising:

etching a gate trench 21A, 22A in a surface of a semiconductor substrate 1 (col. 9, line 57 to col. 10, line 44 and FIG. 6);

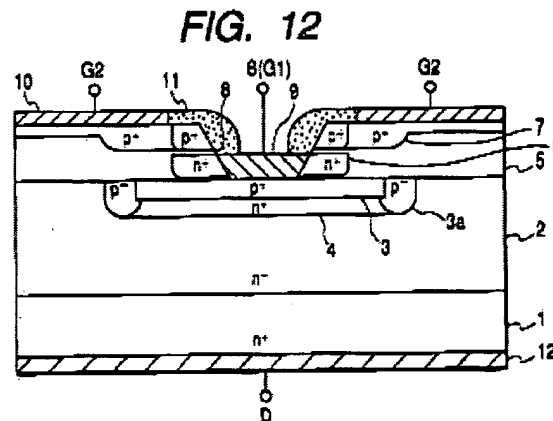
FIG. 6



forming a first gate region 7 at the bottom of the gate trench 21A, 22A, the first gate region 7 continuous in a lateral direction parallel to the surface;

implanting a buffer region 6 beneath the first gate 7 (col. 10, lines 21-32 and FIG.

12); and



implanting a second gate region 3 beneath the buffer region 6, wherein the second gate region 3 is formed entirely beneath the first gate region 7, and wherein the second gate region 3 is continuous in a lateral direction and is narrower than the first gate region 7 (col. 7, line 17 to col. 12, line 29 and FIGS. 2-16).

In re claims 16, 17, and 18, the formation process of the first gate, the buffer region, and the second gate having a specified width as described in FIG. 6 of Kumar inherently required the present of a sidewall spacer.

In re claim 19, **Kumar** discloses that the method of Claim 15, further comprising annealing the substrate subsequent to implanting the second gate (col. 9, line 38 to col. 10, line 32).

In re claim 20, **Kumar** discloses that the method of Claim 15, further comprising annealing the substrate 1 after implanting the second gate (col. 9, line 38 to col. 10, line 32).

Response to Applicant's Amendment and Arguments

Applicant's arguments filed December 27th, 2005 have been fully considered but they are not persuasive.

Applicant contend that the reference Kumar et al. (U.S. Patent 6,551,865), herein known as Kumar does not comprise nor suggest the formation of a dual gate FET structure that comprises the formation of a second gate region beneath a continuous first gate region, wherein the second gate region is narrower than the first gate region in the lateral direction.

In response to Applicant's contention that Kumar does not comprise nor suggest the formation of a dual gate FET structure that comprises the formation of a second gate region beneath a continuous first gate region, wherein the second gate region is narrower than the first gate region in the lateral direction, Examiner respectfully disagrees. Applicant is directed to (col. 11, line 55 to col. 12, line 2 and FIG. 12) where Kumar suggests that the second gate region 3 is continuous in a lateral direction which is formed beneath the buffer region 6 and is narrower than the first gate region 7 since the first gate region is formed across from peripheral to peripheral on the substrate 1.

For this reason, Examiner holds the rejection proper.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khiem D. Nguyen whose telephone number is (571) 272-1865. The examiner can normally be reached on Monday-Friday (8:30 AM - 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K.N.
March 8, 2006



W. DAVID COLEMAN
PRIMARY EXAMINER